

WHAT IS CLAIMED IS:

1 1. A client wireless module, for handling communications to and from an
2 access point wireless module, comprising:
3 an 11b processing section, for processing at least data to be transmitted to the access
4 point into representations of a transmit signal;
5 an OFDM processing section, for processing at least a representation of a receive signal
6 from the access point into receive data;
7 at least one transmit antenna, coupled to the 11b processing section;
8 at least one receive antenna, coupled to the OFDM processing section; and
9 logic for routing information between a client and the client wireless module.

1 2. The client wireless module of claim 1, wherein the at least one transmit
2 antenna comprises a plurality of transmit antennas.

1 3. The client wireless module of claim 1, wherein the at least one receive
2 antenna comprises a plurality of receive antennas.

1 4. A client wireless module, for handling communications to and from an
2 access point wireless module, comprising:
3 an OFDM processing section, for processing at least data to be transmitted to the access
4 point into representations of a transmit signal;
5 an 11b processing section, for processing at least a representation of a receive signal
6 from the access point into receive data;
7 at least one transmit antenna, coupled to the OFDM processing section;
8 at least one receive antenna, coupled to the 11b processing section; and
9 logic for routing information between a client and the client wireless module.

1 5. The client wireless module of claim 4, wherein the at least one transmit
2 antenna comprises a plurality of transmit antennas.

1 6. The client wireless module of claim 4, wherein the at least one receive
2 antenna comprises a plurality of receive antennas.

1 7. An access point wireless module, for handling communications to and from
2 a client wireless module, comprising:

3 an 802.11b processing section, for processing at least data to be transmitted to the client
4 into representations of a transmit signal;
5 an 802.11g processing section, for processing at least a representation of a receive signal
6 from the client into receive data;
7 at least one transmit antenna, coupled to the 802.11b processing section;
8 at least one receive antenna, coupled to the 802.11g processing section; and
9 logic for routing information between an access point and the access point wireless
10 module.

1 8. The access point wireless module of claim 7, wherein the at least one
2 transmit antenna comprises a plurality of transmit antennas.

1 9. The access point wireless module of claim 8, wherein the at least one
2 receive antenna comprises a plurality of receive antennas.

1 10. An access point wireless module, for handling communications to and
2 from a client wireless module, comprising:
3 an 802.11g processing section, for processing at least data to be transmitted to the client
4 into representations of a transmit signal;
5 an 802.11b processing section, for processing at least a representation of a receive signal
6 from the client into receive data;
7 at least one transmit antenna, coupled to the 802.11g processing section;
8 at least one receive antenna, coupled to the 802.11b processing section; and
9 logic for routing information between an access point and the access point wireless
10 module.

1 11. The access point wireless module of claim 10, wherein the at least one
2 transmit antenna comprises a plurality of transmit antennas.

1 12. The access point wireless module of claim 10, wherein the at least one
2 receive antenna comprises a plurality of receive antennas.

1 13. A method of wireless communication between a client device and an
2 access point, wherein a client device is a wireless network station that is portable, mobile or
3 portable and mobile, the method comprising:
4 transmitting upstream data from the client device using an 802.11b protocol;

5 receiving the upstream data at the client device;
6 transmitting downstream data from the access point using an 802.11g protocol; and
7 receiving the downstream data at the client device.

1 14. A method of wireless communication between a first station and a second
2 station, the method comprising:

3 at the first station, transmitting data packets to the second station using a first data
4 modulation and a first data rate;

5 at the first station, transmitting acknowledgement packets to the second station in
6 response to data packets received from the second station, using a first
7 acknowledgement modulation and a first acknowledgement rate;

8 at the second station, transmitting data packets to the first station using a second data
9 modulation and a second data rate; and

10 at the second station, transmitting acknowledgement packets to the first station in
11 response to the data packets received from the first station, using a second
12 acknowledgement modulation and a second acknowledgement rate,

13 wherein the first data rate is distinct from at least one of the second data rate, the first
14 acknowledgement rate, or the second acknowledgement rate.

1 15. A method of claim 14, wherein the first data modulation is distinct from at
2 least one of the second data modulation, the first acknowledgement modulation, or the second
3 acknowledgement modulation.

1 16. A method of claim 14, wherein the first data modulation, the second data
2 modulation, the first acknowledgement modulation, and the second acknowledgement
3 modulation are selected from an 802.11b rate and an OFDM rate.

1 17. A method of claim 16, wherein at least one of the first data modulation,
2 the second data modulation, the first acknowledgement modulation, and the second
3 acknowledgement modulation is an 802.11b modulation and at least one of the modulations is
4 an OFDM modulation.